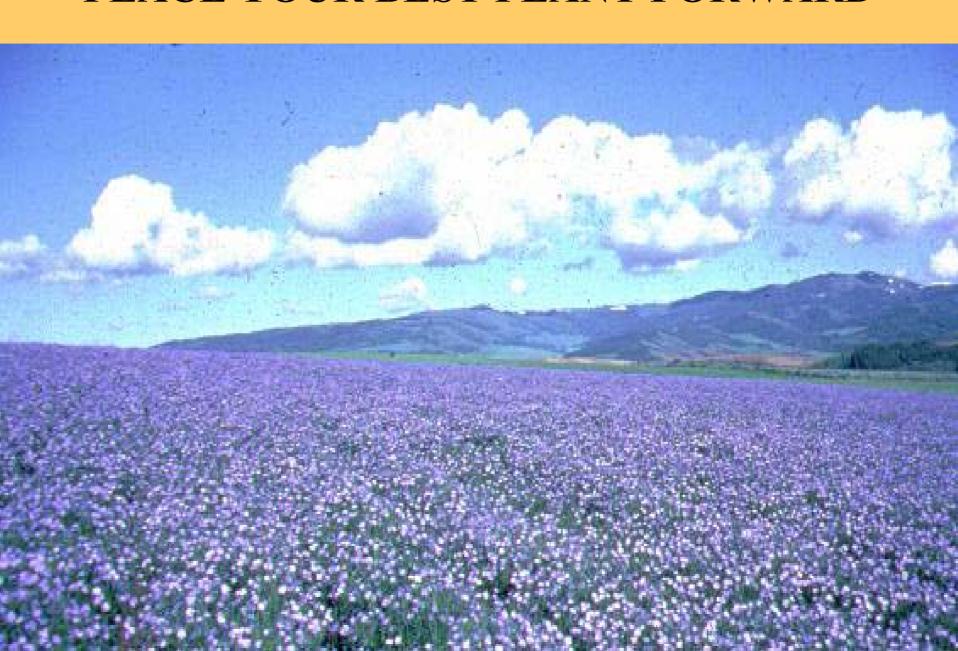
PLACE YOUR BEST PLANT FORWARD



THE PLANT MATERIALS PROGRAM IN THE 1930s



EARLY PROGRAM PRIORITIES

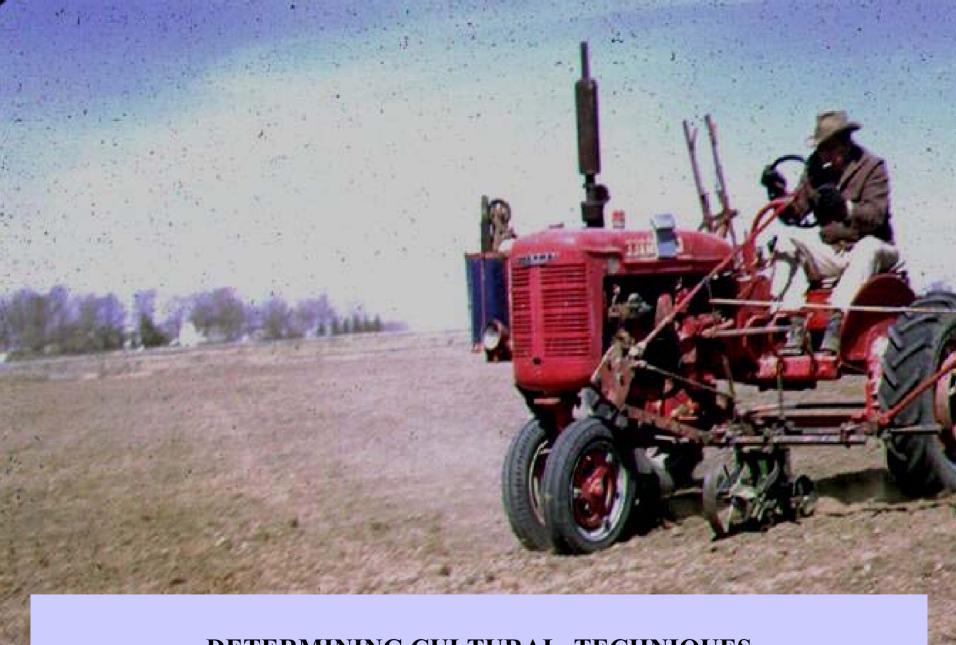


CONSERVATION EFFORTS – LAND PRODUCTVITY



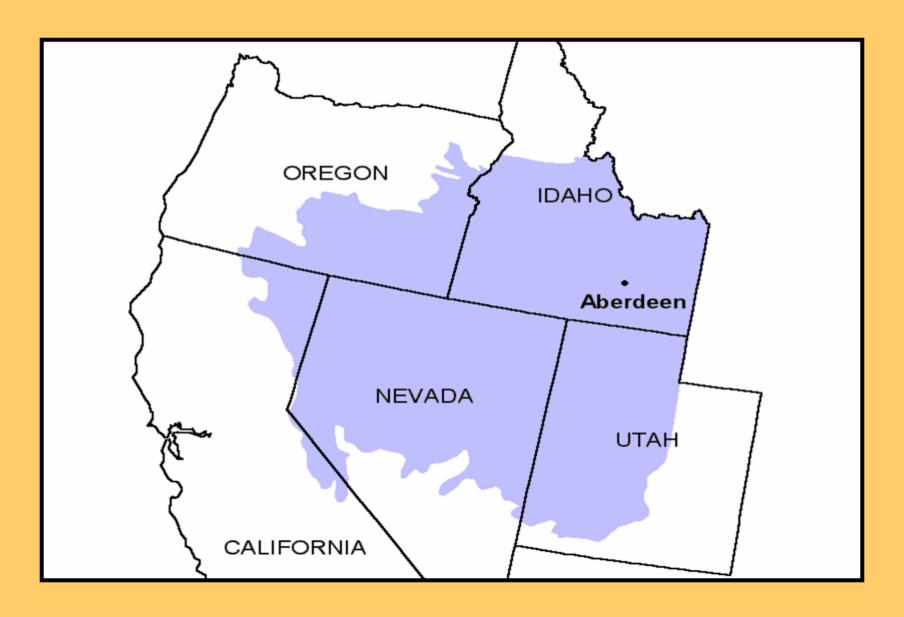
IN THE 1950s THE PROGRAM EVOLVED





DETERMINING CULTURAL TECHNIQUES

Determining Area Of Adaptation



All Releases Were Cultivars



Cultivar (Varietal) Release

- Clearly distinguished by Morphological, Physiological, Cytological, Chemical, and Other characteristics
- Release is uniform in these characteristics
- When reproduced release retains these characteristics Heritability of traits
- The Cultivar (Varietal) release method is used when:
 There is a high level of scientific knowledge,
 Performance testing has been conducted,
 Range of adaptation has been fairly well determined
- Tags Foundation (White); Registered (Purple); Certified (Blue)

IN THE EARLY

1990s

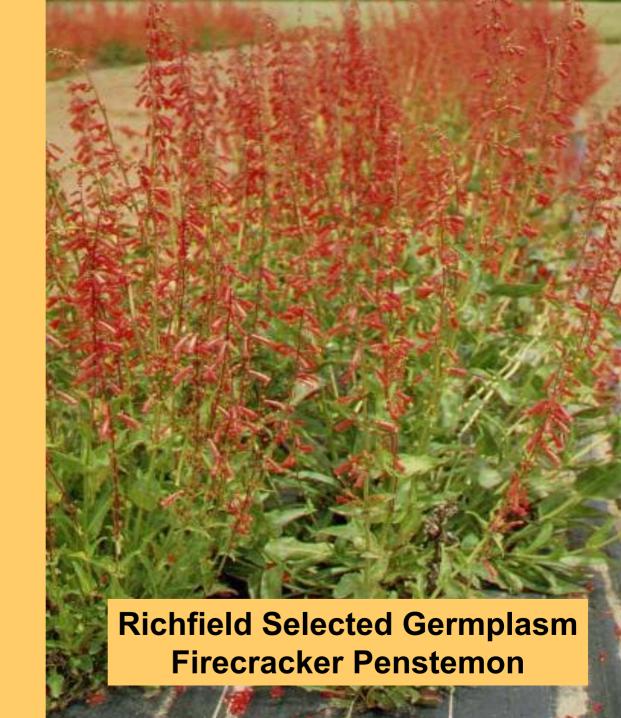
Pre-Varietal

Release

Alternatives

Were

Established



Tested (Pre-Varietal) Germplasm Release

- Are the progeny of plants whose parentage have been tested
- Have proven genetic superiority or possess distinctive traits for which heritability is stable
- Genetic manipulation may or may not have been conducted
- Typically requires 3-6 years or more to statistically validate superior traits
- Approximate area of adaptation and conservation values are partially understood and field plantings are underway
- Tags (Blue) Limited to four Generations (G0, G1, G2, G3)

Selected (Pre-Varietal) Germplasm Release

- Are the progeny of plants selected from collections/ populations
- Parentage has not been tested but selected plants have promise of superior or distinctive traits – May not breed true
- Genetic manipulation may or may not have been conducted
- Typically requires 1-2 years or more to statistically validate superior or distinctive traits
- Area of adaptation and conservation values are not fully understood and field plantings are planned
- Tags (Green) Limited to four Generations (G0, G1, G2, G3)

Source Identified (Pre-Varietal) Germ. Release

- Are the progeny of plants that have no comparative testing
- Parentage has not been tested Plants may not breed true
- Genetic manipulation has not been conducted
- Typically requires 0-1 year to release (Program Leader approval is required for this release method)
- Area of adaptation and conservation values are not understood
- Tags (Yellow) Number of Generations to be determined by Certification Agency (G0)

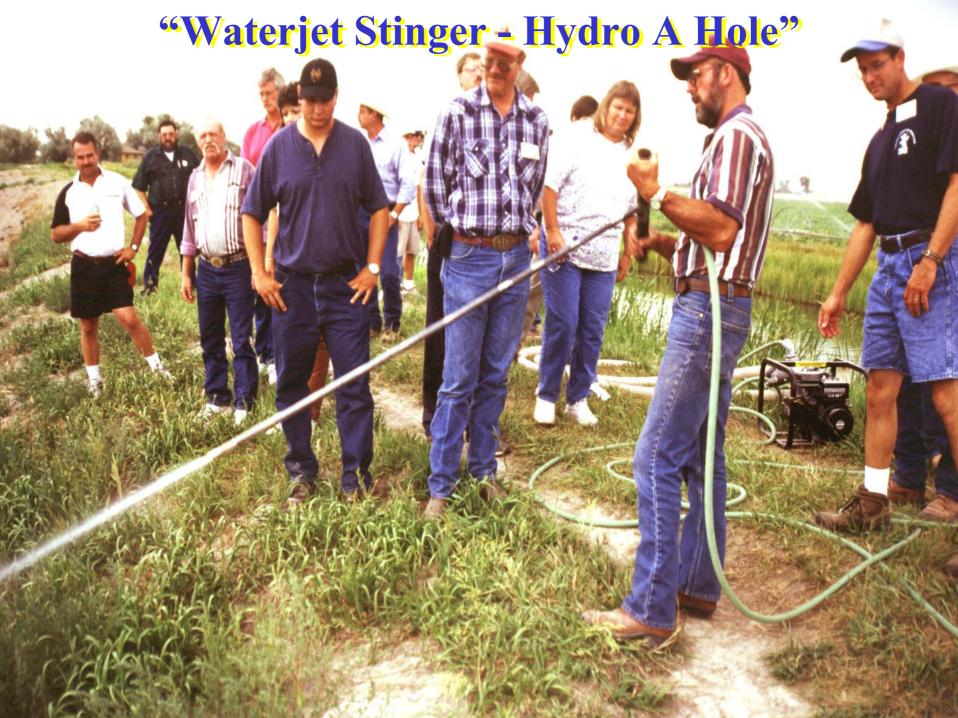
Germplasm (Pre-Varietal) Release

- Plants that may or may not have comparative testing
- Characteristics may have potential in future plant breeding
- Genetic manipulation may have been conducted
- Germplasm should be provided to breeders that request it
- It should not be moved into commercial use without further selection and development









WHERE IS OUR PROGRAM GOING IN THE FUTURE?

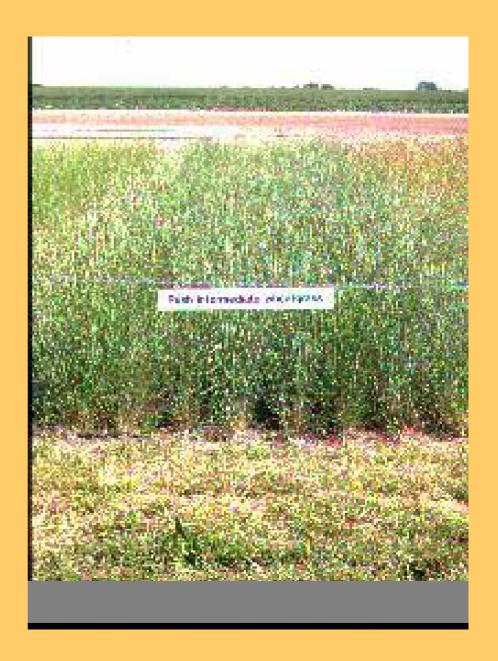
WE NEED TO GET BACK TO THE BASICS

- Collecting Accessions
- Testing Accessions
- Selecting Accessions that show superior performance and traits



Bozoisky-Select Russian Wildrye

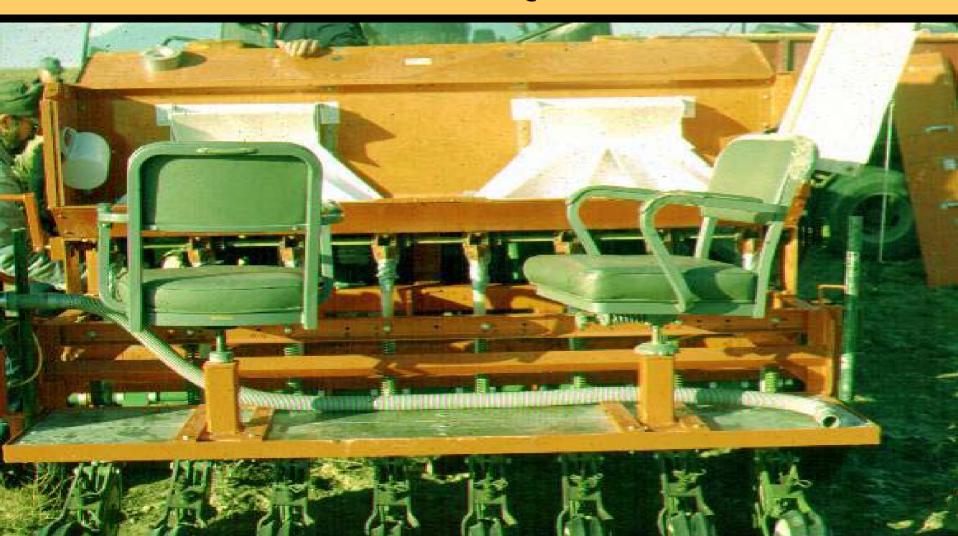
WE MAY ALSO HAVE TO DO MORE THAN JUST SELECT PLANTS



WE NEED TO DO A BETTER JOB OF EXCHANGING TEST AND RECENTLY RELEASED MATERIALS



WE NEED TO SPEND MORE TIME DETERMINING CULTURAL TECHNIQUES AND DEVELOPING EQUIPMENT



THE PLANT
MATERIALS
PROGRAM BUILT ITS
REPUTATION ON
STRONG SCIENTIFIC
DATA

WE NEED TO
REFOCUS OUR
PROGRAM
OBJECTIVES
TOWARD STRONG
SCIENTIFIC
INFORMATION AND
ENVIRONMENTAL
GOALS



THIS WILL REQUIRE COORDINATED EFFORTS TO CONCENTRATE OUR COLLECTIVE ABILITIES TO DEVELOP PLANTS AND PLANT TECHNOLOGY TO HEAL AND PROTECT OUR NATURAL RESOURCES

THIS WILL ALSO REQUIRE FEWER SOURCE IDENTIFIED AND SELECTED RELEASES AND

MORE TESTED AND CULTIVAR RELEASES THAT HAVE PROVEN ATTRIBUTES TO SOLVE OUR NATIONS NATURAL RESOURCES CONSERVATION PROBLEMS WITH KNOWN AREA OF ADAPTATION

DEMONSTRATION AND FIELD PLANTINGS









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